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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/581,347 12/29/95 CLEEVES

J 16820.P121

EXAMINER

HM22/0313

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PORTNER, V

ART UNIT

PAPER NUMBER

1645

24

DATE MAILED:

03/13/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

08/581,347

Applicant(s)

Cleaves

Examiner

Portner

Group Art Unit

1645

☒ Responsive to communication(s) filed on Dec 27, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 21-43 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 21-43 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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**DETAILED ACTION**

Claims 21-40, and new claims 41-43 are pending.

***Rejections Withdrawn***

1. Claim 40 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention

***Rejections Maintained***

2. Claims 38-39 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the specific materials and methods steps for making a semiconductor of claim 38, because the method of claim 21 only provides for the production of a component part of a semiconductor, specifically a semiconductor structure and claim 39 recites the step of making an electronic device, but what components and the arrangement of the components to make the electronic device are not distinctly claimed.

3. Claims 21-27, 29, 31-37, 40 and 41-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Cathey, Jr. (US Pat. 5,096,536) for reasons of record in paper number 21, paragraph 8.

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4. Claim 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Cathey in view of Meyer et al (US Pat. 5089880, issued 1992) for reasons of record in paper number 21, page 6, paragraph I.

5. Claim 21 and 30 rejected under 35 U.S.C. 103(a) as being unpatentable over Cathey in view of Horiuchi et al (US Pat. 4,931,135) for reasons of record in paper number 21, page 7, paragraphs j and k.

***Response to Arguments***

6. Applicant's arguments filed December 27, 2001 have been fully considered but they are not persuasive.

7. The rejection of claims 21-27, 29, 31-37, 40-43 under 35 U.S.C. 102(b) as being anticipated by Cathey, Jr. (US Pat. 5,096,536) is argued to not describe or suggest a system that "results in transferring heat substantially uniformly across a substrate. Furthermore, there is no evidence that this result is inherent to Cathey, Jr."

8. In response to Applicant's assertion that Cathey, Jr does not describe or suggest a system for improving heat transfer uniformly across a substrate, it is the position of the examiner that Cathey, Jr is completely directed to that attainment of increased heat transfer for improved differential sealing that provides adjacent coolant gas cross the receiving region, which is a substrate, in order to obtain an improved result in a method of plasma etching a substrate semiconductor. The

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reference teaches that the prior art used a single seal (instantly claimed method of new claims 41-43), and sought to obtain even a better end product through the use of an additional seal to aid in the control of coolant gas across the substrate to prevent deleterious chemical reaction effects on the substrate (see abstract, title, Figure 1, col. 2, lines 33-45.)

Arguments directed to non-uniformity of the temperature across the wafer are not convincing <sup>because</sup> ~~between~~ the method of Cathey, Jr teaches means and mechanisms that provide for greater environmental control of the helium gas and the coolant for the observed, and improved end product of reduced deleterious chemical reactions which would provide for a semiconductor with greater uniformity due to increased temperature control of the etched substrate.

No structural limitations are recited in the claims that define the instant invention over that disclosed and taught in the prior art. The recitation of a functional limitation without a clear definition of how this functional limitation is achieved through differing structural components or end product differences does not define the claimed invention over that of the applied prior art.

With respect to the lack of evidence being of record to show the inherency of Cathy, Jr anticipating the claimed invention, it is the position of the examiner, since the Office does not have the facilities for examining and comparing applicant's protein with the protein of the prior art, the burden is on applicant to show a novel or unobvious difference between the claimed method of making a product and the method of making the product of the prior art. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and *In re Fitzgerald et al.*, 205 USPQ 594. The rejection is maintained for reasons of record in paper number 21, paragraphs 8 and 9.

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9. The rejection of claim 28 under 35 U.S.C. 103(a) as being unpatentable over Cathey in view of Meyer et al (US Pat. 5089880, issued 1992) is argued by asserting that because Cathey Jr does not "show or suggest transferring heat substantially uniformly across the substrate, the claimed invention is neither anticipated by, nor obvious over the applied references."

10. In response the arguments presented with respect to Cathey in view of Meyer, it is the position of the examiner that Cathey, Jr does anticipate the claimed invention of claims 21-27, 29, 31-37, 40 and 41-43 and in view of Meyer who shows the thickness of the substrate upon which the semiconductor is made, to be from about 75-175 microns, Cathey, Jr in view of Meyer obviate claim 28, for reasons of record in paper number 28, page 6, paragraph (I).

11. The rejection of claims 21 and 30 under 35 U.S.C. 103(a) as being unpatentable over Cathey in view of Horiuchi et al (US Pat. 4,931,135) is argued by asserting that because Cathey Jr does not "show or suggest transferring heat substantially uniformly across the substrate, the claimed invention is neither anticipated by, nor obvious over the applied references."

12. In response the arguments presented with respect to Cathey in view of Horiuchi, it is the position of the examiner that Cathey, Jr does anticipate the claimed invention of claims 21-27, 29, 31-37, 40 and 41-43 and in view of Horiuchi who shows the use of polyimide(( also known as Kapton or Capton) as the polymeric material to make the seal, Cathey, Jr in view of Horiuchi obviate claims 21 and 30, for reasons of record in paper number 28, page 7, paragraphs (j and k ).

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*Conclusion*

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ginny Portner whose telephone number is (703)308-7543. The examiner can normally be reached on Monday through Friday from 7:30 AM to 5:00 PM except for the first Friday of each two week period.

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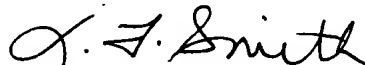
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynette Smith, can be reached on (703) 308-3909. The fax phone number for this group is (703) 308-4242.

The Group and/or Art Unit location of your application in the PTO will be Group Art Unit 1645. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to this Art Unit.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Vgp

March 9, 2001



LYNETTE R. F. SMITH  
SUPERVISORY PATENT EXAMINER  
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